

TIP PROJECT: B-4240

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

POLK COUNTY

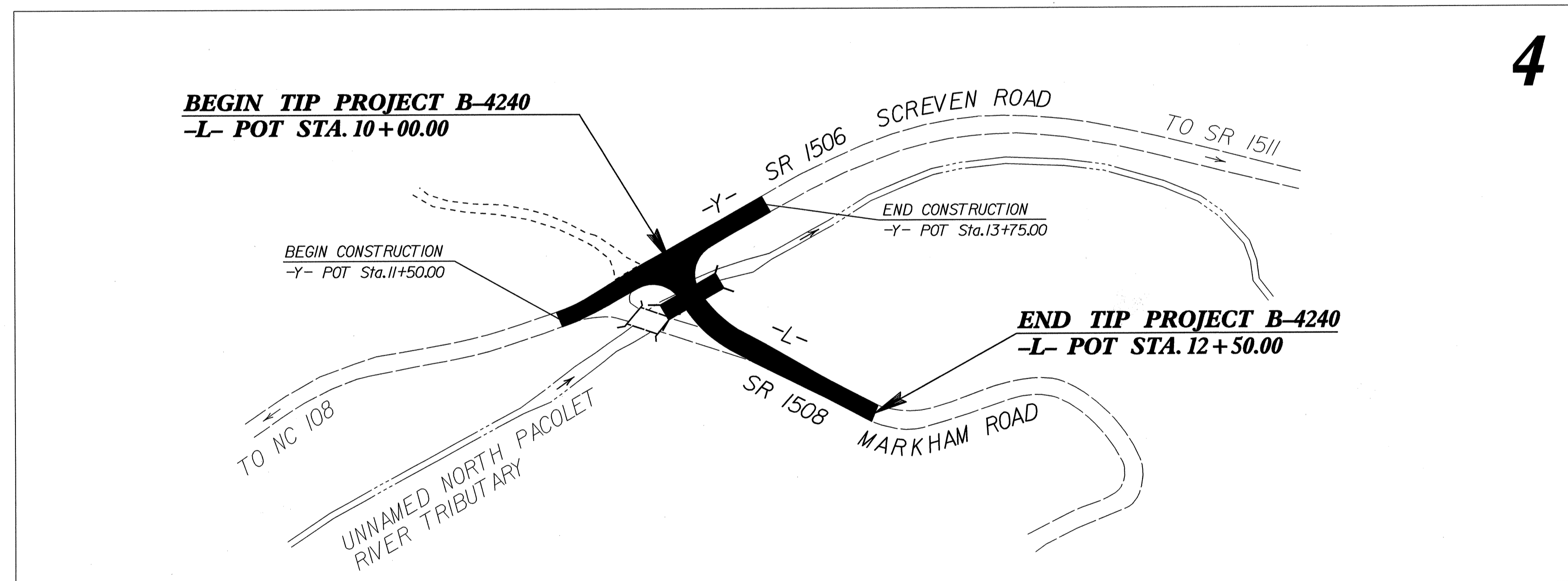
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4240	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
	Streambank Reforestation.....	
1630.03	Temporary Silt Ditch.....	
1630.05	Temporary Diversion.....	
1605.01	Temporary Silt Fence.....	
1606.01	Special Sediment Control Fence.....	
1622.01	Temporary Berms and Slope Drains.....	
1630.01	Riser Basin.....	
1630.02	Silt Basin Type B.....	
1633.01	Temporary Rock Silt Check Type-A.....	
1633.02	Temporary Rock Silt Check Type-B.....	
1634.01	Temporary Rock Sediment Dam Type-A.....	
1634.02	Temporary Rock Sediment Dam Type-B.....	
1635.01	Rock Pipe Inlet Sediment Trap Type-A.....	
1635.02	Rock Pipe Inlet Sediment Trap Type-B.....	
1630.04	Stilling Basin.....	
Rock Inlet Sediment Trap:		
1632.01	Type A.....	OR
1632.02	Type B.....	OR
1632.03	Type C.....	OR

**LOCATION: BRIDGE #193 OVER UNNAMED NORTH PACOLET RIVER TRIBUTARY
ON SR 1508 (MARKHAM ROAD) AND APPROACHES**

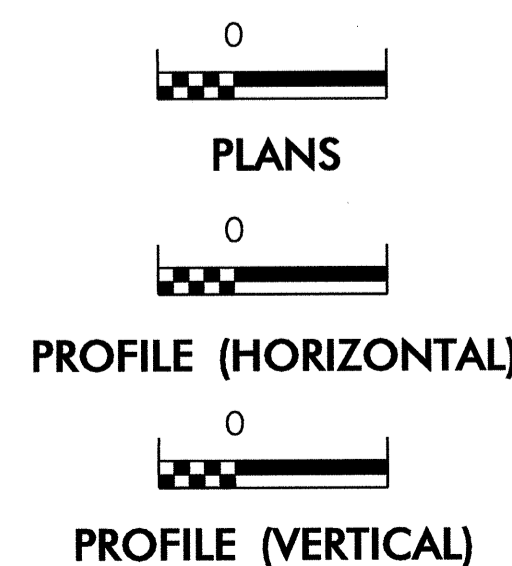
**TYPE OF WORK: GRADING, DRAINAGE, PAVING,
GUARDRAIL, AND CULVERT**



**THIS PROJECT CONTAINS
EROSION CONTROL PLANS
FOR CLEARING AND
GRUBBING PHASE OF
CONSTRUCTION.**



GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

Prepared In the Office of:
ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611
2002 STANDARD SPECIFICATIONS

Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 20, 2002 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

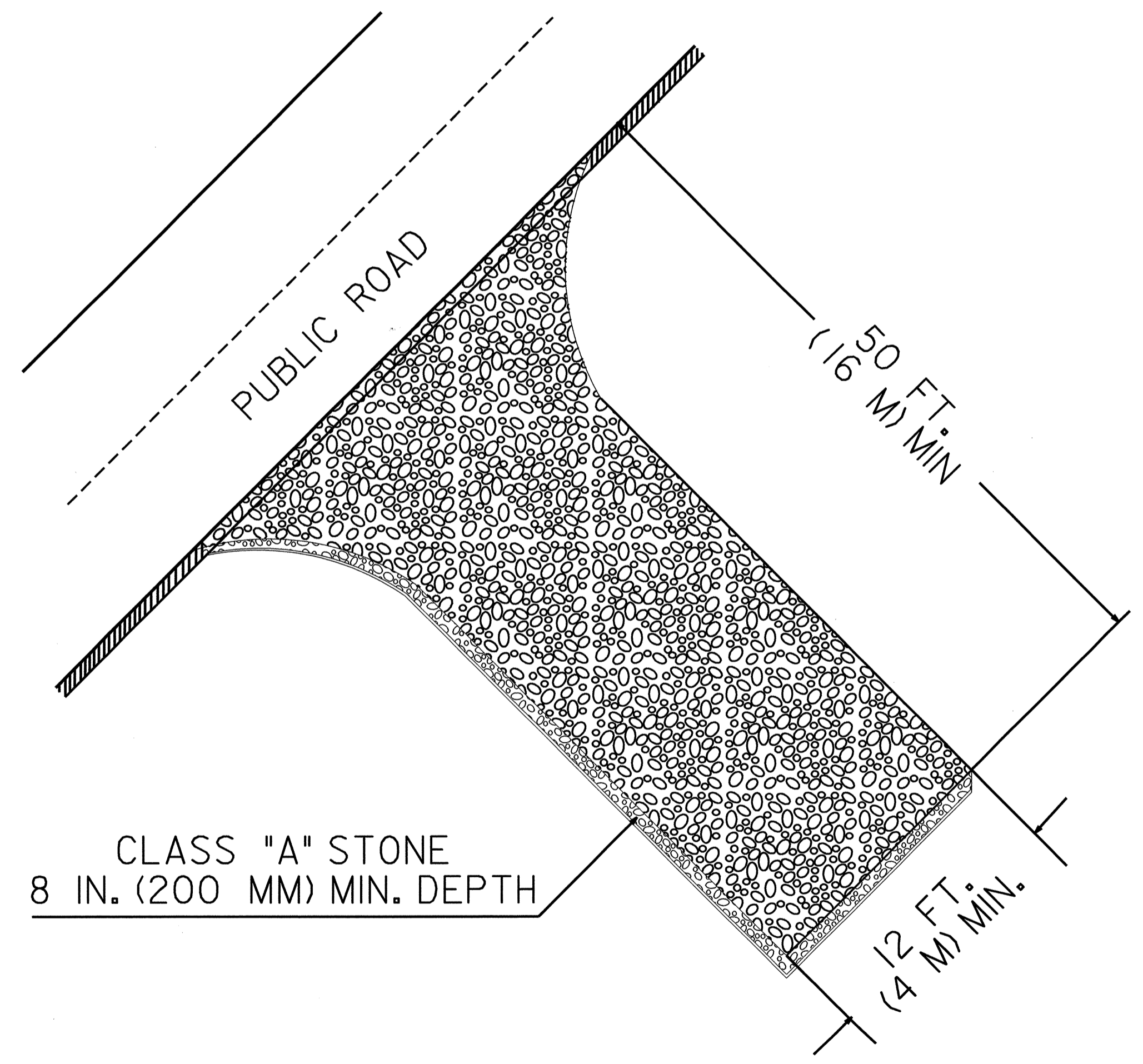
- | | |
|--|--|
| 1605.01 Temporary Silt Fence | 1634.02 Temporary Rock Sediment Dam Type B |
| 1633.01 Temporary Rock Silt Check Type A | 1635.02 Rock Pipe Inlet Sediment Trap Type B |
| 1633.02 Temporary Rock Silt Check Type B | |

PROJECT REFERENCE NO.	SHEET NO.
B-4240	EC-2
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

NOTES:

1. TURNING RADIUS SUFFICIENT TO ACCOMODATE LARGE TRUCKS SHALL BE PROVIDED.
2. ENTRANCE(S) SHOULD BE LOCATED TO PROVIDE FOR UTILIZATION BY ALL CONSTRUCTION VEHICLES.
3. MUST BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR DIRECT FLOW OF MUD ONTO STREETS. PERIODIC TOPDRESSING WITH STONE WILL BE NECESSARY.
4. ANY MATERIAL TRACKED ONTO THE ROADWAY MUST BE CLEANED UP IMMEDIATELY.
5. GRAVEL CONSTRUCTION ENTRANCE SHALL BE LOCATED AT ALL POINTS OF INGRESS AND EGRESS UNTIL SITE IS STABILIZED. FREQUENT CHECKS OF THE DEVICE AND TIMELY MAINTENANCE MUST BE PROVIDED.
6. NUMBER AND LOCATION OF CONSTRUCTION ENTRANCES TO BE DETERMINED BY THE ENGINEER



NOTE: FILTER FABRIC TO BE PLACED BENEATH STONE

8/17/99

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

-BL- POT Sta. 8+47.56 (BL-2)
-BY- PINC Sta. 7+36.51 (BY-2)
-L- Sta. 10+12.63 (31.97 RT)
-Y- Sta. 12+37.00 (12.75 RT)

BEGIN STATE PROJECT B-4240
-L- POT Sta. 10+00.00
-Y- POT Sta. 12+68.92

-BY- POT Sta. 8+91.10 (BY-3)
-Y- Sta. 13+91.57 (11.11 RT)

END STATE PROJECT B-4240
-L- POT Sta. 12+50.00

-BL- POT Sta. 5+00 (BL-1)
-L- Sta. 13+78.67 (12.41 LT)

**22 x 7 x 3
4' weir**

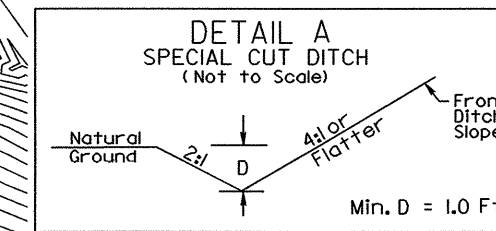
**18 x 6 x 3
4' weir**

-Y-
PI Sta 11+25.28
 $\Delta = 19' 55' 46.3''$ (LT)
D = 12' 43' 56.6"
L = 156.53'
T = 79.06'
R = 450.00'

PI Sta 15+76.38
 $\Delta = 42' 47' 39.2''$ (RT)
D = 15' 04' 40.2"
L = 283.82'
T = 148.90'
R = 380.00'

-BY- POT Sta. 5+00.00 (BY-1)
-Y- Sta. 10+02.45 (9.68 RT)

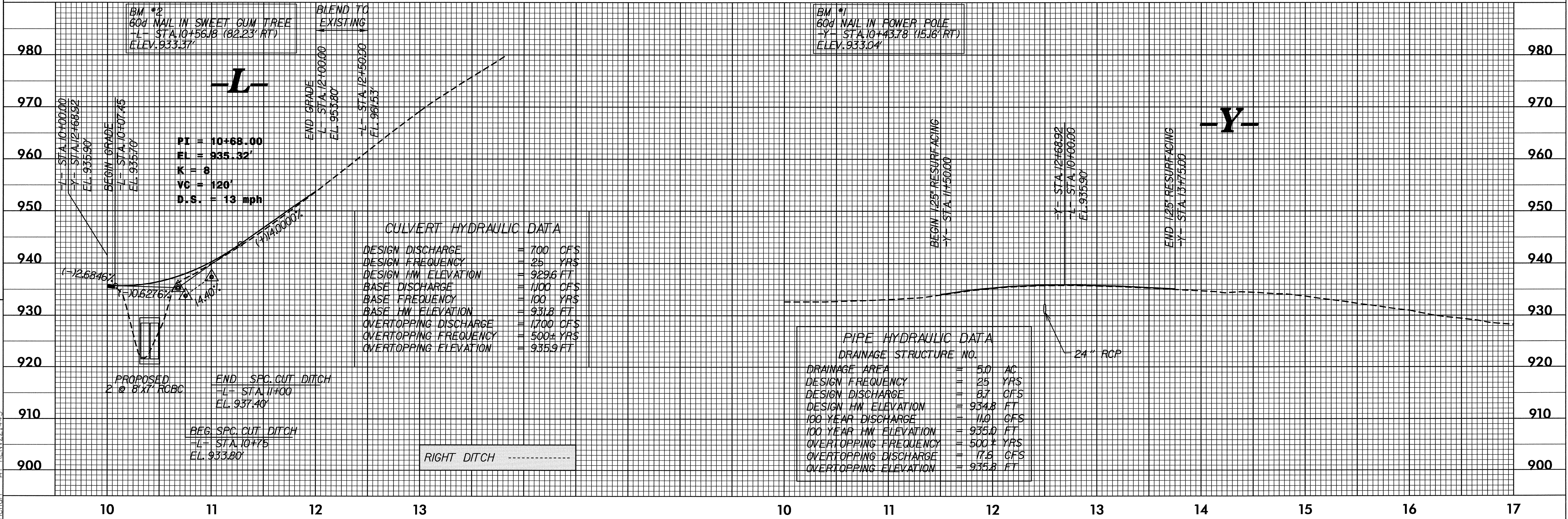
N/F
FRENDRICH INDUSTRIES, INC
DB 205 PG 1054



-L-
PI Sta 10+71.64
 $\Delta = 32' 16' 18.7''$ (LT)
D = 49' 49' 20.7"
L = 64.77'
T = 33.27'
R = 115.00'
RO = 60'
SE = 0.04 ft/ft
D.S. = 20 mph

PI Sta 12+79.62
 $\Delta = 46' 46' 57.0''$ (LT)
D = 65' 51' 26.0"
L = 71.04'
T = 37.63'
R = 87.00'

REVISIONS



BM #2
60# NAIL IN SWEET GUM TREE
-L- STA. 10+56.18 (82.23' RT)
ELEV. 933.37'

BLEND TO
EXISTING
-L- STA. 12+100.00
ELEV. 953.00'

BM #1
60# NAIL IN POWER POLE
-Y- STA. 10+43.78 (15.16' RT)
ELEV. 933.04'

PI = 10+68.00
EI = 935.32'
K = 8
VC = 120'
D.S. = 13 mph

CULVERT HYDRAULIC DATA

DESIGN DISCHARGE	= 700 CFS
DESIGN FREQUENCY	= 25 YRS
DESIGN HW ELEVATION	= 929.6 FT
BASE DISCHARGE	= 1100 CFS
BASE FREQUENCY	= 100 YRS
BASE HW ELEVATION	= 931.8 FT
OVERTOPPING DISCHARGE	= 1700 CFS
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING ELEVATION	= 935.9 FT

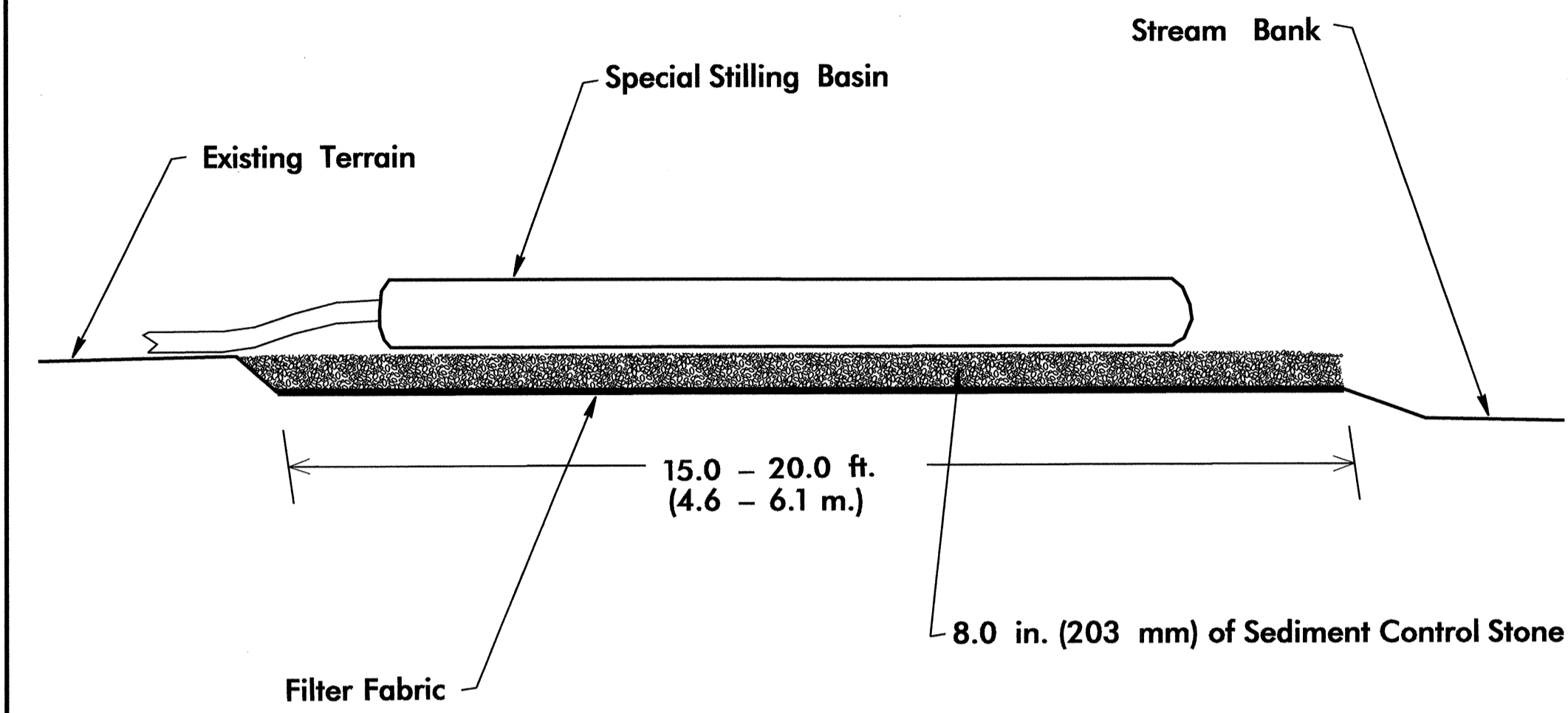
PIPE HYDRAULIC DATA
DRAINAGE STRUCTURE NO.

DRAINAGE AREA	= 5.0 AC
DESIGN FREQUENCY	= 25 YRS
DESIGN DISCHARGE	= 8.7 CFS
DESIGN HW ELEVATION	= 934.8 FT
100-YEAR DISCHARGE	= 11.0 CFS
100-YEAR HW ELEVATION	= 935.0 FT
OVERTOPPING FREQUENCY	= 500 YRS
OVERTOPPING DISCHARGE	= 17.6 CFS
OVERTOPPING ELEVATION	= 935.8 FT

13-JAN-2006 09:24
g:\t\p\o\ec\ts-b\4240\environmental\design\4240_ec_dsm.dgn
sheet 4 REV 12/14/05

PROJECT REFERENCE NO.	SHEET NO.
B-4240	EC-4/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

SPECIAL STILLING BASIN WITH ROCK PAD



Not To Scale

Note: Provide Stabilized Outlet to Streambank

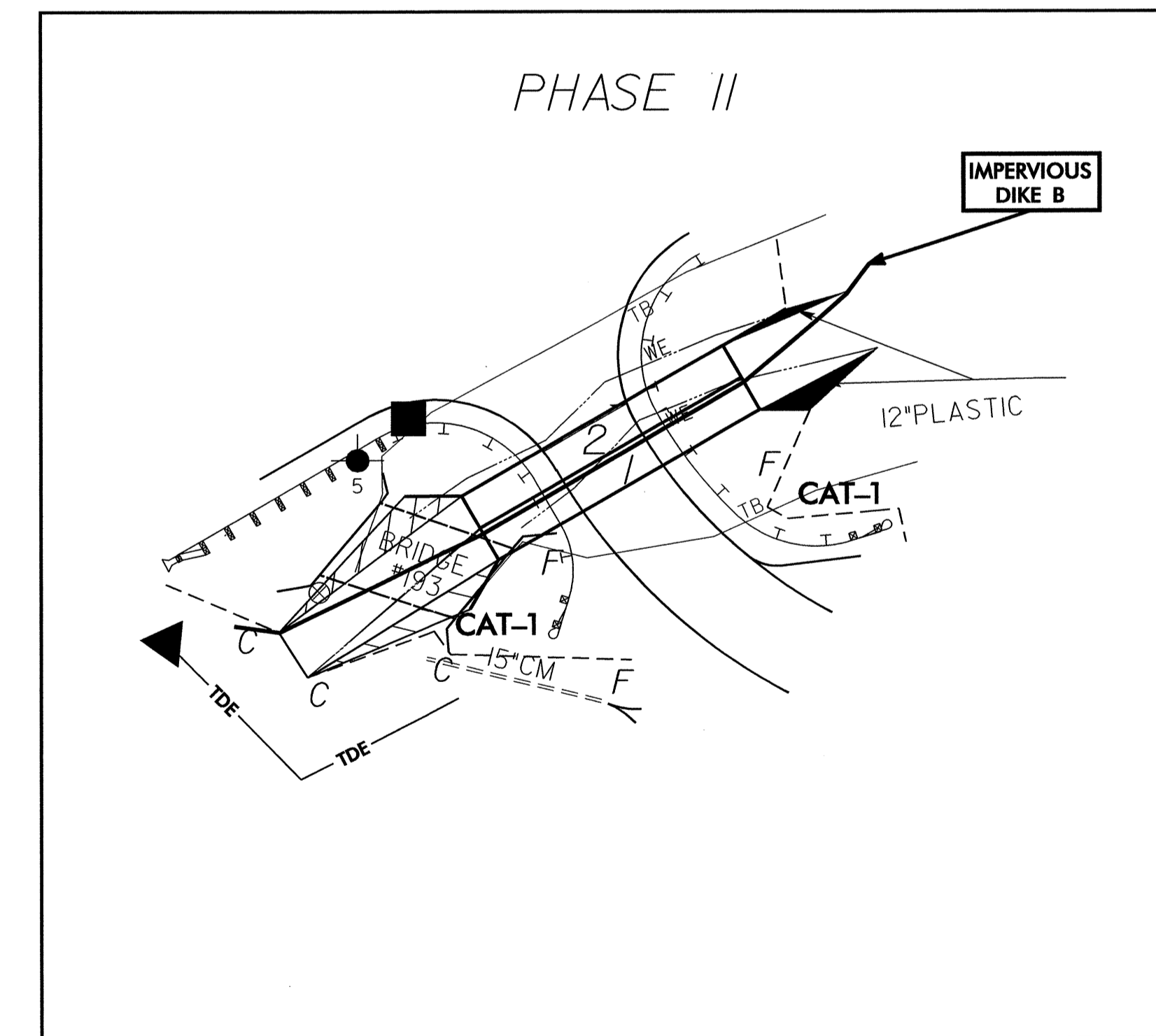
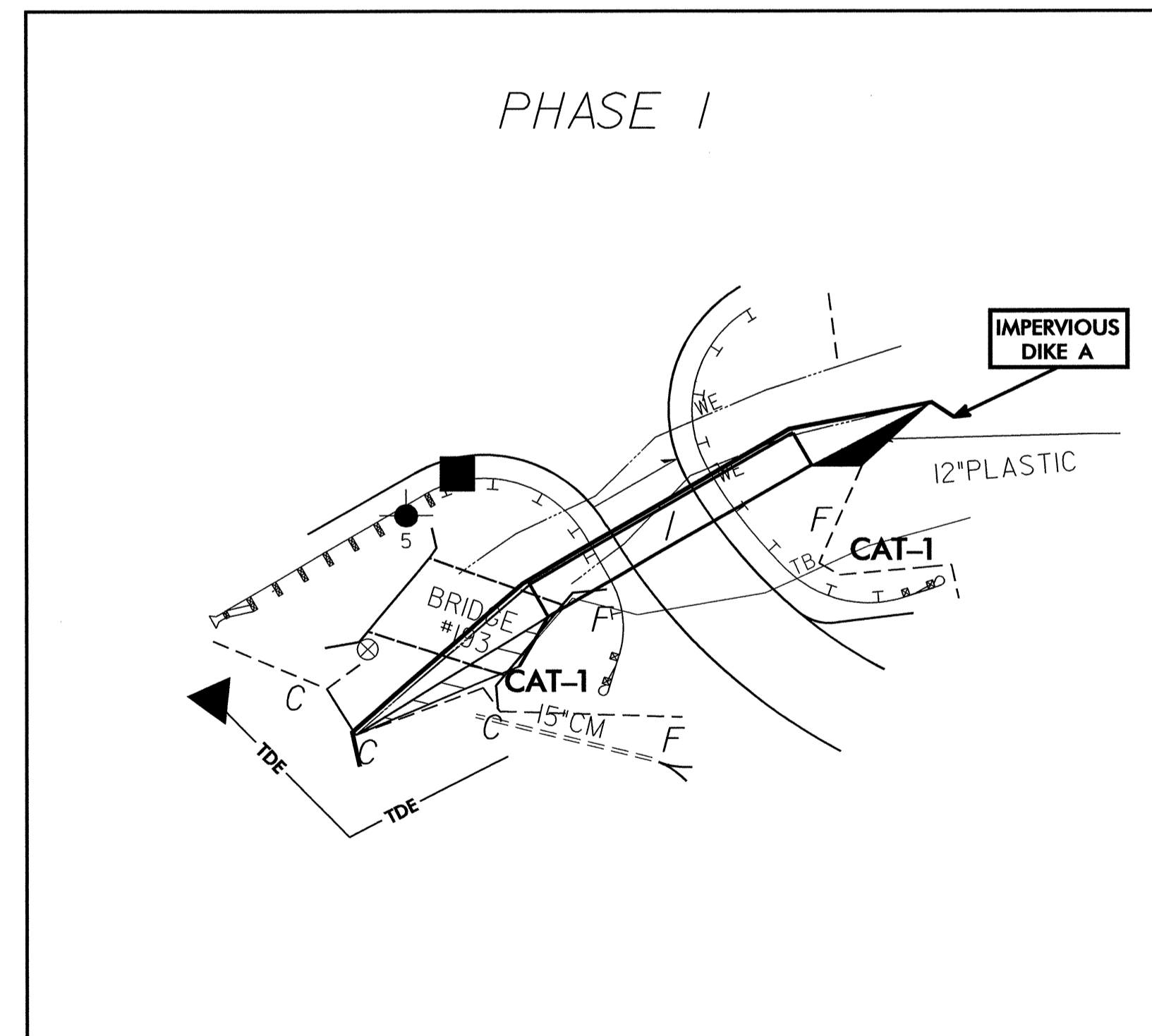
CONSTRUCTION SEQUENCE

PHASE I

1. REMOVE EXISTING BRIDGE DECK
2. CONSTRUCT SPECIAL STILLING BASIN.
3. DIVERT STREAM FLOW WITH IMPERVIOUS DIKE A. REMOVE EXISTING SOUTH ABUTMENT.
4. CONSTRUCT BARREL I.

PHASE II

1. REMOVE IMPERVIOUS DIKE A. DIVERT STREAM FLOW THROUGH BARREL I WITH IMPERVIOUS DIKE B. REMOVE EXISTING NORTH ABUTMENT.
2. CONSTRUCT PROPOSED BARREL 2.
3. REMOVE IMPERVIOUS DIKE B AND SPECIAL STILLING BASIN.
4. COMPLETE ROADWAY



PROJECT REFERENCE NO.	SHEET NO.
B-4240	EC-5/CONST.4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99

REVISIONS

13-JAN-2006 09:25
 g:\tipproj\ec-5\54240\environmental\design\4240_ec-dsm.dgn
 Author: A1 REN/2/14/5

